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SUITE 2400			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)
Office Action Summan	10/772,786	SHARRAH ET AL.
Office Action Summary	Examiner	Art Unit
	Ephrem Alemu	2821
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the	e correspondence address
A SHORTENED STATUTORY PERIOD FOR REPL THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a repl - If NO period for reply is specified above, the maximum statutory period - Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailin earned patent term adjustment. See 37 CFR 1.704(b).	136(a). In no event, however, may a reply be ly within the statutory minimum of thirty (30) o will apply and will expire SIX (6) MONTHS fro e, cause the application to become ABANDO	timely filed flays will be considered timely, om the mailing date of this communication. NED (35 U.S.C. § 133).
Status		
 1) Responsive to communication(s) filed on <u>28 A</u> 2a) This action is FINAL. 2b) This 3) Since this application is in condition for alloward closed in accordance with the practice under A 	s action is non-final. nce except for formal matters, p	
Disposition of Claims		
4) ☐ Claim(s) 1-34 is/are pending in the application 4a) Of the above claim(s) is/are withdra 5) ☐ Claim(s) 22-27 is/are allowed. 6) ☐ Claim(s) 1-6,9,10,12-17,19,20,28,32 and 34 is 7) ☐ Claim(s) 7,8,11,18,21,29-31 and 33 is/are objection Claim(s) are subject to restriction and/or Application Papers 9) ☐ The specification is objected to by the Examine	wn from consideration. s/are rejected. ected to. or election requirement. er. eepted or b) objected to by the drawing(s) be held in abeyance. Stion is required if the drawing(s) is a	See 37 CFR 1.85(a). Objected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Bureat * See the attached detailed Office action for a list	ts have been received. Is have been received in Application of the property o	ation No ved in this National Stage
Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2/04,3/04 & 4/04.	4) Interview Summa Paper No(s)/Mail 5) Notice of Informa 6) Other:	ry (PTO-413) Date I Patent Application (PTO-152)

DETAILED ACTION

Claim Objections

1. Claims 5 and 28 are objected to because of the following informalities: In claim 5, lines 2 and 3, "said light source" lack antecedent basis since there are more than one "light sources" (i.e., first and second light sources) recited in the independent claim 1, it is not clear which light source is referred by "said light source".

In claim 28, line 10, "said second transistor" should be replaced with –said first transistor-- since there is no second transistor claimed in claim 28. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 3. Claims 1, 2, 4, 9, 10, 12, 13, 14, 19, 20, 28, 32 and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al. (US 6,841,941).

Re claims 1, 2, 4, 9, 12, 13, 14 and 19, Kim discloses in a battery operated light (i.e., hand held flash light) comprising a first light source (i.e., incandescent lamp 18), a battery (22) and a first switch (i.e., second on position in which switch assembly 26 with switch contacts 34 in contact with contact 38) in circuit for selectively energizing the first light source (i.e.,

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incandescent lamp 18) to produce light (i.e. light output approximately sixty lumens) (Figs. 1, 2, 15; Col. 2, lines 2-8; Col. 4, line 53- Col. 5, line 48; Col. 7, line 23- Col. 8, line 20);

a source of a reference potential (i.e., TTL threshold input via resistor 95 and/or stable power source by diode 96, series resistor 97 and capacitor 98; wherein the source of reference potential comprises a diode and/or a Zener diode and/or a resistive voltage divider) (Figs. 1, 2, 15; Col. 8, lines 28-46);

a comparator (i.e., microprocessor 90 which is included in controller 30) responsive to a potential produced by the battery and to the reference potential for de-energizing the first light source when the battery potential is below a predetermined potential (Figs. 1, 2, 15; Col. 1, lines 44-49; Col. 3, lines 17-34; Col. 8, line 21- Col. 9, line 9; especially see Col. 8, starting line 63);

a second light source (i.e., LEDs 20) that operates at a lower current than does the first light source to produce light (i.e. light output approximately five lumens) (Figs. 1, 2, 15; Col. 1, line 63- Col. 2, line 2; Col. 4, line 53- Col. 5, line 48; Col. 8, lines 8-20); and

a second switch (i.e., second on position in which switch assembly 26 with switch contacts 32 in contact with contact 36) in circuit with the battery for selectively energizing the second light source to produce light (Figs. 1, 2, 15; Col. 1, line 63- Col. 2, line 2; Col. 4, line 53-Col. 5, line 48; Col. 8, lines 8-45; Col. 9, lines 1-23; wherein the second switch (i.e., second on position in which switch assembly 26 with switch contacts 32 in contact with contact 36) is operable independently of the first switch and/or is operable responsive to the comparator (i.e., microprocessor 90 which is included in controller 30) de-energizing the first light source when the battery potential is below the predetermined potential).

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Re claims 10 and 20, Kim further discloses means for energizing (i.e., controller 30) the second light source responsive to the comparator (i.e., microprocessor 90 which is included in controller 30) de-energizing the first light source (i.e., incandescent lamp 18) when the battery potential is below the predetermined potential (Figs. 1, 2, 15; Col. 1, line 63- Col. 2, line 2; Col. 4, line 53- Col. 5, line 48; Col. 8, lines 8-45; Col. 9, lines 1-23).

Re claims 28 and 32, Kim discloses a power control for battery operated apparatus comprising:

first and second terminals across which a battery potential (22) may be applied; a first switch (26) having first and second ends, the first end thereof being coupled to the first terminal (i.e., negative terminal of battery 22) (Fig. 15);

a first transistor (94) having a controllable conduction path between first and second electrodes and having a control electrode (i.e., electrode that is connected to pin 5 of microprocessor 90) for controlling the conduction of the controllable conduction path thereof, the first electrode thereof being coupled to the second terminal (i.e., via switch 26); and

a source of a reference potential (i.e., TTL threshold input via resistor 95 and/or stable power source by diode 96, series resistor 97 and capacitor 98, wherein the source of reference potential comprises a diode and/or a Zener diode and/or a resistive voltage divider) (Figs. 1, 2, 15; Col. 8, lines 28-46);

wherein the second electrode of the first transistor is coupled to the first terminal via a load (18) (Fig. 15)..

Re claim 34, Kim discloses in a battery operated light (i.e., hand held flash light) comprising a first light source (i.e., incandescent lamp 18), a battery (22) and a first switch (i.e.,

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second on position in which switch assembly 26 with switch contacts 34 in contact with contact 38) in circuit for selectively energizing the first light source (i.e., incandescent lamp 18) to produce light (i.e. light output approximately sixty lumens) (Figs. 1, 2, 15; Col. 2, lines 2-8; Col. 4, line 53- Col. 5, line 48; Col. 7, line 23- Col. 8, line 20);

a source of a reference potential (i.e., TTL threshold input via resistor 95) (Figs. 1, 2, 15; Col. 8, lines 28-46);

a comparator (i.e., microprocessor 90 which is included in controller 30) responsive to a potential for de-energizing the first light source when the battery potential is below a predetermined potential (Figs. 1, 2, 15; Col. 1, lines 44-49; Col. 3, lines 17-34; Col. 8, line 21-Col. 9, line 9; especially see Col. 8, starting line 63);

a second light source (i.e., LEDs 20) that operates to produce light (i.e. light output approximately five lumens) at a lower current than does the first light source (i.e., incandescent lamp 18), wherein the second light source is operable from the battery to produce light at least after the comparator de-energizing the first light source (i.e., incandescent lamp 18) (Figs. 1, 2, 15; Col. 1, line 63- Col. 2, line 2; Col. 4, line 53- Col. 5, line 48; Col. 8, lines 8-20).

Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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5. Claims 3, 5, 6, 15, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (US 6,841,941).

Re claim 3, 5, 6, 15, 16 and 17, although, Kim does not discloses the second switch or comparator comprises a transistor having a controllable conduction path in circuit with the battery and the second light source and having a control terminal coupled to the comparator for controlling the second light source responsive to the comparator de-energizing the first light source when the battery potential is below the predetermined potential, Kim discloses a controller 30 including a microprocessor 90 including a transistor 94 for the purpose of controlling the de-energizing of the first light source and the energizing of the second light source when the battery potential is below the predetermined potential (i.e., incandescent lamp 18) (Figs. 1, 2, 15; Col. 1, line 63- Col. 2, line 2; Col. 4, line 53- Col. 5, line 48; Col. 8, lines 8-20).

Therefore, it would have been well in the skill of an artisan at the time the invention was made to modify the circuit of Kim's by providing the transistor having a controllable conduction path in circuit with the battery and the second light source and having a control terminal coupled to the comparator, since Kim discloses of using a transistor for the purpose of controlling the deenergizing of the first light source when the battery potential is below the predetermined potential.

Allowable Subject Matter

6. Claims 22-27 are allowed.

7. Claims 7, 8, 11, 18, 21, 29-31 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fail to teach or suggest alone or in combination, the following limitations: "a second transistor having a controllable conduction path in circuit with the battery and said source of reference potential and having a control terminal coupled to the controllable conduction path of said first transistor" in a manner claimed in claims 7, 8, 11, 18, 21, 29 and 33.

Claims 30 and 31 are objected to as being dependent over objected claim 29.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gutmann (US 6,623,139); and Park et al. (US 4,249,234); also teach similar inventive subject matter.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ephrem Alemu whose telephone number is (571) 272-1818. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don K Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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